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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,962	12/31/2003	Hiroaki Kuwano	053969-0160	6222

22428 7590 12/01/2005

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EXAMINER

KARIKARI, KWASI

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/747,962

Applicant(s)

KUWANO ET AL.

Examiner

Kwasi Karikari

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08/31/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 08/31/2003 is in compliance with the provision of 37 CFR 1.97, has been considered by the Examiner, and made of record in the application file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-8,10-12 and 14-16 are rejected under U.S.C. 102(e) as being unpatentable over Beckmann et al., (U.S 20040176112 A1), (hereinafter Beckmann).

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Regarding **claims 1 and 16** Beckmann discloses a mobile communication system (**see** Fig. 1) having a function of delivering data of an identical service (multicast service MBMS, **see** Par. [0051]) to a plurality of radio terminals (radio communication system that transmits group message to plurality of subscriber devices, **see** Par. [0002]), wherein information for paging with respect to a radio terminal (informing mobile device about an arrival of message or incoming call, **see** Par. [0050]), which receives delivery of the service, is generated using identification information peculiar to the service (group paging indicator, for example International Mobile Group Identity (IMSI), is assigned to every mobile radio device in the group, **see** Pars. [0045])

Regarding **claims 2**, Beckmann discloses the mobile communication system according to claim 1, wherein the information for paging includes a downlink common channel (paging message channel is S-CPCH), which sends a paging message, and a paging indicator channel (paging indicator channel PICH, **see** Par. [0064]), which accompanies the downlink common channel and sends information indicating (paging message **see** Par. [0036]) presence or absence of an incoming call with respect to a radio terminal receiving delivery of the service (radio network informs the respective mobile station by means of paging indicator channel that messages are waiting to be retrieved, **see** Par. [0036]), and

the information indicating presence or absence (waiting message) of an incoming call and transmission timing (paging indicator channel last for 10ms and it is in 300 bits

long, **see** Par. [0042]) of the information are generated according to identification information peculiar to the service.

Regarding **claim 3**, Beckmann discloses the mobile communication system according to claim 2, wherein the identification information peculiar to the service is superimposed on an indication bit (the first 288 bits are used to transmit paging Indicators, **see** Par. [0042]) for a paging group (incoming call group) indicating presence (waiting message, **see** Par. [0040]) or absence of a voice incoming call in the paging indicator channel (the first 288 bits are used to transmit paging Indicators and the remaining 12 bits are not part of the PICH and are not to be transmitted, **see** Pars. [0042-45]).

Regarding **claim 4**, Beckmann discloses the mobile communication system according to claim 1, wherein the information peculiar to the service is notified to said radio terminal receiving the service (multicast paging), and said radio terminal receives the information for paging on the basis of the information peculiar to the service (subscriber to group service would have to be informed about incoming message in a dedicated manner, **see** Par. [0036]).

Regarding **claims 5 and 10**, Beckmann discloses a radio network controller (RNC 1, **see** Fig. 1) in a mobile communication system having a function of delivering data of an identical service to a plurality of radio terminals (group transmission of message, **see** Par. [0036]), comprising

means for generating information for paging with respect to a radio terminal (addressing messages to mobile stations, see Par. [0036] and Par. [0040], lines 1-10), which receives delivery of the service, by using identification information peculiar to the service (subscriber device selects paging channel to listen to base on the IMSI of the device, see Par. [0040]).

Regarding **claims 6 and 11**, Beckmann discloses a radio network controller (RNC 1, see Fig. 1) according to claims 5 and 10, wherein the information for paging includes a downlink common channel (paging message channel is S-CPCH), which sends a paging message, and a paging indicator channel (paging indicator channel PICH, see Par. [0064]), which accompanies the downlink common channel and sends information indicating presence or absence of an incoming call with respect to a radio terminal receiving delivery of the service (radio network informs the respective mobile station by means of paging indicator channel that messages are waiting to be retrieved, see Par. [0036]), and said means generates the information indicating (paging message see Par. [0036]) presence or absence of an incoming call (waiting message) and

transmission timing (paging indicator channel last for 10ms and it is in 300 bits long, see Par. [0042]) of the information according to identification information peculiar to the service.

Regarding **claims 7 and 12**, Beckmann discloses a radio network controller according to claims 6 and 11, wherein the identification information peculiar to the service is

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superimposed on an indication bit (the first 288 bits are used to transmit paging Indicators, **see** Par. [0042]) for a paging group (incoming call group) indicating presence (waiting message, **see** Par. [0040]) or absence of a voice incoming call in the paging indicator channel (the first 288 bits are used to transmit paging Indicators and the remaining 12 bits are not part of the PICH and are not to be transmitted, **see** Pars. [0042-45]).

Regarding claims **8 and 13** Beckmann discloses the radio network controller (RNC 1) according to claims 6 and 11, wherein the (Paging Indicator: PI) determined

$$PI = (DRXindex) \bmod (N_p),$$

$$DRXindex = (TMGI) \div (8192)$$

$$N_p = (18, 36, 72, 144) \text{ and}$$

TMGI=Temporary Mobile Group Identify (the identification information peculiar to the service) (IMSI being TMGI, **see** Pars. [0040-45])

Regarding **claim 15**, Beckmann discloses a radio terminal (mobile station involving in a group service, **see** Par. [0040]) in a mobile communication system having a function of delivering data of an identical service to a plurality of users (multicast paging to subscriber informing about arrival of message via a paging indicator, **see** Par. [0040]), wherein identification information peculiar to the service is received from a network side at the time when said radio terminal joins the service, and information for paging is received on the basis of the identification information (**see** Pars. [0030-35]).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beckmann in view of Terry (U.S. 20040023672 A1)

Regarding claim **9 and 14**, Beckmann discloses the radio network controller (RNC 1) according to claims 6 and 11, wherein the transmission timing (Paging Occasion: PO) (PICH transmission time, see Par. [0042]) and TMGI(IMSI, see Par. [0040]), but fail to teach the expression:

$$PO = \{[(TMGI) \div (K)] \bmod \{(DRX \text{ cycle length}) \div (PBP)\}} * PBP + n * (DRX \text{ cycle length}) + \text{Frame Offset}$$

TMGI=Temporary Mobile Group Identify (the identification information peculiar to the service) K: the number of existing paging channels, DRX (Discontinuous Reception) cycle length: a period for receiving the paging indicator channel, PBP: Paging Block Periodicity, n: an integer including zero (up to a maximum number of an SFN (Serial Frame Number)).

Terry discloses a paging occasion express (see Par. [0014-23]; where TMGI corresponds to IMSI).

It would therefore have been obvious to one of the ordinary skill in the art to combine the teaching of Terry into the system of Beckmann for the benefit of achieving a multicast paging system with an expression indicating paging occasion.

Conclusion

4 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Sarkkinen (U.S. 20040127243 A1) teaches a service-activation based state switching
Collins et al. (U.S. 6,157,815) teaches method and apparatus for providing broadcast messages in a communication network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwasi Karikari whose telephone number is 571-272-8566. The examiner can normally be reached on M-F (8 am - 4pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571- 272 5905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kwasi Karikari
Patent Examiner.



CHARLES APPIAH
PRIMARY EXAMINER